Summary of the Utah Mercury Work Group Meeting
February 11, 2009

MERCURY WORK GROUP MEMBERS PRESENT

John Whitehead, Chairman	DEQ/ Division of Water Quality
Christina McNaughton	Utah Department of Health
Clay Perschon	DNR/ Division of Wildlife Resources
Paul Dremann	Anglers Group
Mark Martin	Department of Agriculture & Food
Bruce Waddell	Duck Clubs
Chris Cline	U.S. Fish & Wildlife Service/ Contaminants Program
Dave Naftz	U.S. Geological Survey
Scott Everett	DEQ/Div. of Environmental Response & Remediation
Jeff Salt	Citizen
Kevin Okelberry	Local Health Department
Bill Johnson	University of Utah
Sandie Spence	U.S. Environmental Protection Agency (by conf. call)

OTHERS PRESENT

Amy Dickey	DEQ/ Division of Water Quality
Jodi Gardberg	DEQ/ Division of Water Quality
Ben Brown	DEQ/ Division of Water Quality
Bill Sinclair	DEQ
Aaron Redman	Hydro Qual
Larry Scanlan	Utah Department of Health
McKell Drury	Utah Department of Health
Mansuel Pierce	Great Salt Lake Alliance
Jacob Parnell	Utah State University
Chris Bittner	DEQ/Division of Solid & Hazardous Waste
Kathy Van Dame	Wasatch Clean Air
Kevin Perry	University of Utah
Judy Fahys	Salt Lake Tribune
Mike Stark	Associated Press

1. Call to Order, Roll Call of Utah Mercury Work Group, Audience Introductions:
John Whitehead of DEQ Division of Water Quality called the meeting to order and welcomed all in attendance. Roll Call of the Work Group was taken and the audience introduced.

2. Approval of the September 25, 2008 Meeting Summary:
John Whitehead, Utah Division of Water Quality asked if there were questions or comments concerning the September 25, 2008 Meeting Summary. There were no questions or comments and the summary was approved. The meeting summary is posted at this web address: http://www.deq.utah.gov/Issues/Mercury/prior_meetings.htm

3. 2008 Fish Sampling and Analysis – Ben Brown, Utah Division of Water Quality

Ben Brown, Utah Division of Water Quality gave a presentation titled "2008 Sampling and Analysis". The presentation is posted at this web address:
http://www.deq.utah.gov/Issues/Mercury/prior_meetings.htm

Comments from the Work Group:
Jeff Salt asked how the community, particularly the angling community can bring resources or volunteers to help DWQ and DWR sample

John Whitehead DWQ responded that sampling is limited by funding for the laboratory analysis. More fish could be collected but not analyzed.

Jeff Salt thought that the angling community would be interested in contributing to the effort and agreed to be the point person who would initiate contact.

Chris Cline, U.S. Fish & Wildlife Service asked if there were constraints on the state for receiving funds from a no profit organization. For example if Trout Unlimited had a fundraiser for the effort.

Bill Sinclair, DEQ responded that in the DEQ statutes there is a mechanism that for the Department to receive monetary gifts such as donations from foundations to do work.

Bruce Waddell, Duck Clubs asked if all the samples are fillets. He asked because the birds eat the whole fish instead of just fillets that humans eat.

Ben Brown, DWQ said that the samples are frozen as whole fish and processed in the lab. The sample is taken between the head and dorsal fin.

Dave Naftz, USGS asked if the National Park Service has been involved with the Lake Powell sampling. He mentioned that there is a USGS/NPS cooperative water quality program

John Whitehead DWQ responded that there is a technical group for Lake Powell and the National Park Service is a part of that group. The sampling plan was presented to the group and results will be reported to the group. He said that based on past sampling in Lake Powell fish in the southern end of the reservoir have higher levels of Mercury than the Northern end. The sampling plan was designed to collect 150 fish in the southern end.

Ben Brown, DWQ said that the 2008 samples will be available soon. The fish are frozen until December when they are processed and sent to the EPA lab. Results should be available in early May.

4. 2008 Fish Advisory Follow-up – John Whitehead, Utah Division of Water Quality
John Whitehead, Utah Division of Water Quality gave a presentation titled "MERCURY FISH STATS FOR UTAH". The presentation is posted at this web address:
http://www.deq.utah.gov/Issues/Mercury/docs/021109_Mercury_Fish_Stats_for_Utah_slide.pdf

Comments from the Work Group:

Bruce Waddell, Duck Clubs asked if there was sampling on tribal lands. He mentioned that there was sampling being done for Mercury on Bottle Hollow Reservoir.

John Whitehead DWQ replied that they are involved with the Lake Powell sampling but that is all.

Dave Naftz, USGS mentioned that there is an EPA/Tribal Meeting in March and that would be a good forum to discuss fish sampling. The USGS has a partnership with the Uinta Ouray tribe and will sample in the Uinta Basin.

Chris Cline, U.S. Fish & Wildlife Service asked if reservoirs and streams that have mercury in fish revisited to confirm the findings.

John Whitehead DWQ replied that sites with fish exceeding the mercury limit tend to continue to have fish with mercury. If there is a lot of variability in the sample, the site is not given an advisory until it can be confirmed the following year.

Chris Cline, U.S. Fish & Wildlife Service asked if the site consistently has hits are other species tested.

John Whitehead DWQ replied yes other species are collected if possible. If there are multiple species at a site, they are collected. Cutthroat Trout are not collected because they are recovering species.

Bill Johnson, University of Utah asked if anyone was looking at the data from a geochemical perspective to tease out the conditions that are conducive to mercury cycling.

John Whitehead DWQ replied that there have been talks within the Division of next steps and there may be data to analyze the conditions.

Mansuel Pierce, Great Salt Lake Alliance suggested that a list of waterbodies that were clean would be helpful to the angling population.

Jeff Salt suggested handing out this list when anglers get their fishing license from DWR

5. Mercury Outreach Efforts – McKell Drury, Utah Department of Health
McKell Drury, Utah Department of Health gave a presentation titled "MERCURY COMMUNICATIONS GROUP". The presentation is posted at this web address:
http://www.deq.utah.gov/Issues/Mercury/docs/021109_mercury_communications.pdf

Comments from the Work Group:
Clay Perschon, DWR added that the fish advisory website is a great source of information and up to date. When people call DWR, they direct them to the website.

Bruce Waddell, Duck Clubs added that subsistence fisherman may not be looking at the website. He suggested adding language to the advisory map that says the green dots represent clean sites.

Dave Naftz, USGS suggested adding a zoom feature that would give the name of the waterbody and the sampling results.

Jeff Salt mentioned that the Utah Anglers Association has a booth at the International Sportsman Expo in March and it would be helpful to have someone from the agencies be there to discuss the fish advisories. He also suggested that Utah Broadcasters Association may help with Public Service Announcements.

6. Mercury Cycling Model of the New York/New Jersey Harbor – Aaron Redman, HydroQual Inc.
Aaron Redman, HydroQual Inc. gave a presentation titled "ENVIRONMENTAL CHEMISTRY OF MERCURY". The presentation is posted at this web address:
http://www.deq.utah.gov/Issues/Mercury/docs/021109_Redman-MWG_090214-v2.pdf

Comments from the Work Group:
Jeff Salt asked if there were differences in the rates of methylation in the Hudson River as opposed to the mixing zone in Long Island sound with the introduction of salt water and differences in pH.

Aaron Redman, HydroQual Inc. said that the model does accommodate that and there are differences both spatially and temporally. At the time the model was devised there was a small spatial data set. They are working with EPA Region 2 to update the model.

Jeff Salt Asked how much influence do chlorine complexes have on sulfate reduction.

Aaron Redman, HydroQual Inc replied that it is a minor contribution.

Dave Naftz, USGS mentioned that speciation models cannot be applied to waters greater then sea water and could be applied to Great Salt Lake

Aaron Redman, HydroQual Inc said the correction factors are based on ionic strength. These factors would have to be validated in the lab before using the model for Great Salt Lake

Bill Johnson, U of U said the model predicts bio-availability based on speciation. He asked Aaron to explain how it takes into account the DOC interaction with Mercury

Aaron Redman, HydroQual Inc said that DOC concentration is parameterized by a multi site model for example 3 lignins with differential binding strengths.

Bruce Waddell, Duck Clubs asked

Jacob Parnall, Utah State University said that he thought it was possible.

Chris Cline, U.S. Fish & Wildlife Service

7. Reducing Dental Amalgam Discharges – Jen Robinson, Utah Division of Water Quality

Jen Robinson, Utah Division of Water Quality gave a presentation titled "MOU ON REDUCING MERCURY". The presentation is posted at this web address:
http://www.deq.utah.gov/Issues/Mercury/docs/021109_MOU_on_Reducing_Hg.pdf

Comments from the Work Group:
Mansuel Pierce, Great Salt Lake Alliance asked who takes the samples

Jen Robinson, Utah Division of Water Quality replied that the POTW's (Publicly owned Treatment Works) do and submits the results to DWQ.

Jeff Salt mentioned that even if the Mercury is removed, from the waterway it is taken to the landfill. He asked if there was a plan to remove it from the landfill.

Jen Robinson, Utah Division of Water Quality replied that she didn't know the landfill requirements but if the sludge is land applied or sold to the public is must meet the 503 sludge regulations. The preferable method for pre treatment applications is land applied.

Bruce Waddell, Duck Clubs asked how much mercury can POTW's discharge.

Jen Robinson, Utah Division of Water Quality replied that permit levels are based on the receiving waterbody. Once the data is obtained DWQ calculates a wasteload allocation that determines the permit level. DWQ requires the low method detection (1631 testing).

Dave Naftz mentioned that the 12 ng/L is the aquatic life standard. If that is what is discharged, especially to Great Salt Lake then it would exceed this standard and accumulate.

8. Update on Great Salt Lake Mercury Ecosystem Assessment - Jodi Gardberg, Utah Division of Water Quality
Jodi Gardberg, Utah Division of Water Quality gave a presentation titled "UPDATE ON THEGREAT SALT LAKE MERCURY ECOSYSTEM ASSESSMENT". The presentation is posted at this web address:
http://www.deq.utah.gov/Issues/Mercury/docs/021109_Hg_workgroup_GSL_Hg_update.pdf

Comments from the Work Group:
Jeff Salt asked how the funding was obtained

Jodi Gardberg, Utah Division of Water Quality replied that there was a one time state appropriation for $66,000 and 2 EPA grants totaling $187,000 that funded the study. She added that this has been a successful cooperative effort between project partners that have devoted staff and time to this study.

Jeff Salt suggested making a presentation to the legislature with the results so they get feedback on how the money was spent.

Mansuel Pierce, Great Salt Lake Alliance applauded the effort and was hoping that the results will be presented.

Jodi Gardberg, Utah Division of Water Quality replied that the next step for the team will be data evaluation.

9. FY2009 Budget & Monitoring Plan– John Whitehead, Utah Division of Water Quality
John Whitehead, Utah Division of Water Quality gave a presentation titled "2009 MERCURY BUDGET". The presentation is posted at this web address (starts at page 7):
http://www.deq.utah.gov/Issues/Mercury/docs/021109_Mercury_Fish_Stats_for_Utah_slide.pdf

Comments from the Work Group:
Bruce Waddell, Duck Clubs asked how many total fish samples are being proposed for collection in 2009.

John Whitehead, Utah Division of Water Quality replied that close to 400 samples

10. Workgroup Meeting Schedule for 2009 and Future Agenda Topics
Agenda Topics:

- DWQ Mercury Standard Process Setting for Great Salt Lake
- Mercury standards and area wide water quality management plans looking at permits and discharges
- Method 1631 and how it is applied

Workgroup Meetings for 2009

- May 12
- September 24
- December 9